

Multi-Channel Optical Digitizer for Earth Sciences

Completed Technology Project (2011 - 2013)



Project Introduction

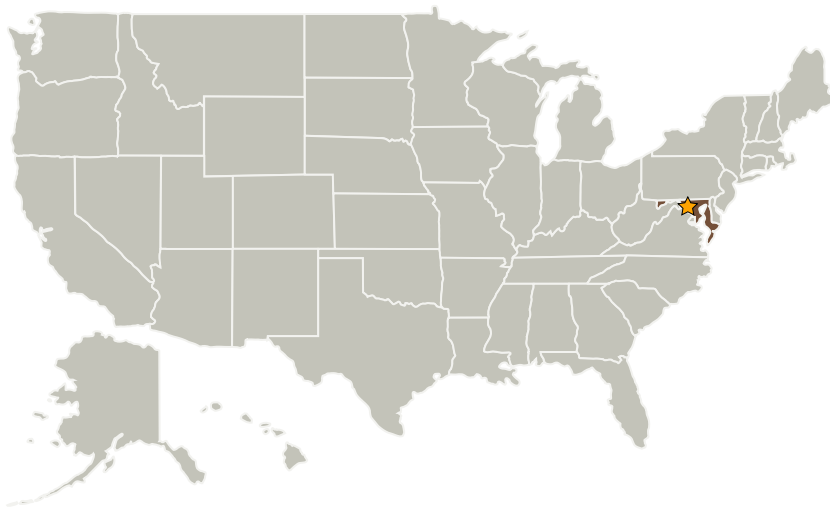
The goal was to produce an ASIC (application specific integrated circuit) incorporating a multi-channel optical digitizer for use in image sensor instruments.

The main objective was to design and manufacture a multi-channel high resolution analog-digital converter for digitizing a CCD image signal. The tasks included schematic capture, simulation, layout and verification leading to a GDSII foundry ready database. The chip was sent for manufacture in August 2012 and silicon was received in October 2012.

Anticipated Benefits

N/A

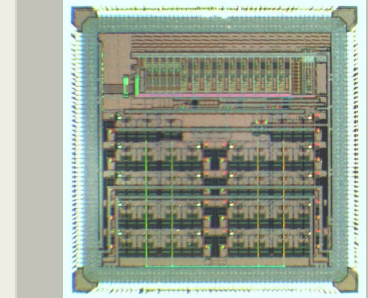
Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Goddard Space Flight Center(GSFC)	Lead Organization	NASA Center	Greenbelt, Maryland

Primary U.S. Work Locations

Maryland



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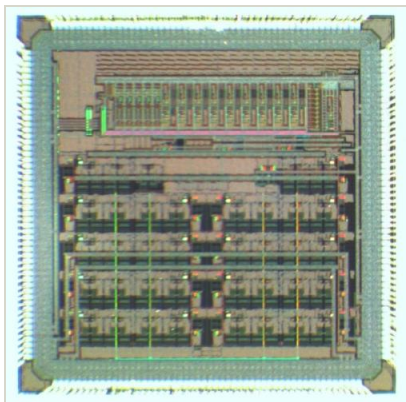
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Images



5291.jpg

Multi-Channel Optical Digitizer for Earth Sciences

(<https://techport.nasa.gov/image/1333>)

Project Website:

<http://sciences.gsfc.nasa.gov/sed/>

Organizational Responsibility

Responsible Mission Directorate:

Mission Support Directorate (MSD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Center Independent Research & Development: GSFC IRAD

Project Management

Program Manager:

Peter M Hughes

Project Manager:

Wesley A Powell

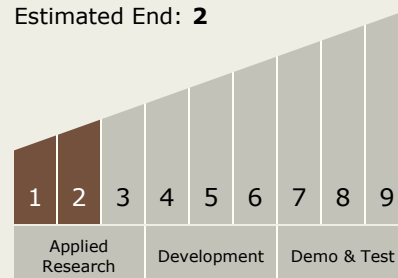
Principal Investigator:

Gerald Quilligan

Technology Maturity (TRL)

Start: **1**

Estimated End: **2**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.2 Electronics